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AIR POLLUTION  
CONTROL PM

November 3, 2010

Mr. Kendall Hale, Chief  
Construction Permits Unit  
Air Pollution Control Program  
Missouri Department of Natural Resources  
1659 E. Elm St.  
Jefferson City, MO 65101

Re: Construction Permit Application  
Heartland Materials, LLC, Heartland Quarry

2009 E. McCarty St.  
Jefferson City, MO 65101  
voice: 573.636.9454  
fax: 573.761.4200

Dear Mr. Hale:

On behalf of Heartland Materials, LLC, (Heartland), LLC, Midwest Environmental Consultants (MEC) submits the enclosed application to construct and \$100 filing fee for a new stationary crushing facility. The proposed facility will be located off County Road 601, Jackson, Missouri within a 161-acre tract of land located at SUR 799/2192, Township 32 N, Range 13 E, Cape Girardeau County, Missouri. The application, which contains an Application to Construct Form, Form 1.1, Form 1.2, Form 1.3 and a site map, is included in Attachment A.

1350 E. Kingsley St.  
Suite E  
Springfield, MO 65804  
voice: 417.886.9200  
fax: 417.886.9876

Heartland has identified the primary crusher as the "core" component of this operation. In lieu of the equipment maximum hourly design rates to determine potential emissions and compliance with the National Ambient Air Quality Standards (NAAQS), Heartland requests the review be based on generic process limitations. Heartland accepts a reduced NAAQS compliance threshold for total process emissions of 130 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) and the use of Best Management Practices (BMPs) for fugitive dust control for haul roads and vehicular activity areas of the stock piles. Heartland requests a voluntary emissions limit of 15 tons per year for particulate matter less than 10 microns ( $\text{PM}_{10}$ ) per year. A CD containing an electronic copy of the quarry spread sheet is also enclosed.

209 E. Green Meadows Rd.  
Suite H  
Columbia, MO 65203  
voice: 573.443.4102  
fax: 573.443.4105

[www.mecpc.com](http://www.mecpc.com)

The generic equipment listed in the quarry spread sheet is a reflection of the planned development of the facility.

According to Heartland the local utility indicated it will take 5 to 6-months to provide line power to the facility. Interim power will be supplied by a 1,000 horse power (estimated) portable generator set. The portable generator set will be at the facility less than 12-months and will be removed once line power is supplied to the facility. The generator set has not been included in the spread sheet because it is considered to be transportable and is transported from location to location.

Heartland requests solitary and same owner/different owner concurrent operations at this facility.

If you have any questions, please call me at (573) 636-9454 or e-mail me at [dsmart@mecpc.com](mailto:dsmart@mecpc.com).

Sincerely,

MIDWEST ENVIRONMENTAL CONSULTANTS

A handwritten signature in black ink, appearing to read "Dean S. Smart", with a stylized, sweeping flourish extending to the right.

Dean S. Smart  
Project Manager

**ATTACHMENT A**

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AIR POLLUTION  
CONTROL PROGRAM

Missouri Department of Natural Resources  
Air Pollution Control Program  
APPLICATION FOR AUTHORITY TO CONSTRUCT

KB

APCP USE ONLY	
Check No.: 1003	Check Recd: 11-3-10
Check Amount: \$ 100-	Check Date: 10-22-10
Project Number:	

All Applications Must be Accompanied by a \$100 Filing Fee, Except for Those Applying for Permit Amendments. Processing Fees at the Rate currently charged by the APCP will be Assessed at the End of the Review (unless no permit is required).			
Installation Name:			
1.) Heartland Materials, LLC			
Installation Street Address:			
2.) County Road 601			
Installation Mailing Address:			
3.) See Parent Company Address			
Installation City:		State:	ZIP CODE:
4.) Jackson		MO	63755
County:	Cape Girardeau	SUR 799	
5.)	6.) 1/4, of	1/4, of	Section: SUR 2192 Township: 32N Range: 13E
Final Product/Principle Activity		SIC Code	
7.) Limestone Quarry		8.) 1422	
Parent Company:			
9.) Heartland Materials LLC			
Parent Company Mailing Address:			
10.) P.O. Box 558			
Parent Company City:		State:	ZIP CODE:
11.) Benton		MO	63730
Contact Person:		Contact Person's Title:	
12.) Danny Dumey		Member	
Contact Person's Mailing Address:			
13.) P.O. Box 558			
Contact Person's City:		State:	ZIP CODE:
14.) Benton		MO	63730
Contact Person's Telephone Number:		Contact Person's Fax Number:	
15.) 573-545-3030		16.) 573-545-3830	
Contact Person's Email Address:			
17.)			
Unified Review			
18.) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
This Application is for:			
Modification or Addition to an Existing Installation <input type="checkbox"/>		New Installation <input checked="" type="checkbox"/>	
Amendment to Existing Permit: Permit No. _____		Temporary/Pilot Plant <input type="checkbox"/>	
FIPS County ID Number:		Plant ID Number:	
20.) 467 031 DSS 11/3/10		21.)	
Projected Date to Commence Construction:		Projected Date of Operation Startup:	
22.) 1/1/2011		23.) After the first of 2011	
APPLICANT'S CERTIFICATION STATEMENT:			
I certify that I have personally examined and am familiar with the information in this application and believe that the information submitted is accurate and complete. I am aware that making a false statement or misrepresentation in this application is grounds for denying or revoking the construction permit. I may also be guilty of a misdemeanor and upon conviction, may be punished by fine or imprisonment.			
Signature of Responsible Official:		Date:	
24.) Danny Dumey		25.) Oct. 22, 2010	
Type or Print Name of Responsible Official:		Responsible Official's Telephone Number:	
26.) Danny Dumey		27.) 573-545-3030	
Official Title of Responsible Official:			
28.) Member			

Project Description and Narrative [use attached sheets if necessary]:

29.) Heartland Materials would like to construct a rock crushing facility. The facility will consist of primary, secondary, tertiary and fine crushers, screens, conveyors and storage bins. The blast rock will be loaded in the grizzly/feeder by truck to feed the primary crusher. The primary crusher will be located in the quarry pit and crushed rock from the primary will be conveyed to the remainder of the plant for further crushing, screen and stock piling.

## Emission Information for Air Construction Permit Application

### Form 1.1 Process Flow Diagram for Facility According to Proposed Application

Installation Name: (a.) Heartland Materials, LLC	FIPS County No. (b.) 031	Plant No. (c.)
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For a new installation, show the entire installation. For an addition to an existing installation, show only the new processes/equipment/emission points and begin the ID numbering where the existing EIQ emission point numbers leave off. If the application is for a modification or an addition to an existing emission point or unit, show the upstream downstream point(s) or equipment that this modification will affect.

No Flow Diagram - Generic Permit

**Form 1.2 Summary of Emission Points Affected by this Application (duplicate this form as needed.)**

[illegible]

## Emission Information for Air Construction Permit Application

### Form 1.3 Plant Layout Diagram

Installation Name: (a.) Heartland Materials, LLC	FIPS County No. (b.) 031	Plant No. (c.)
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Please use this page or a separate sheet to provide a Plant Layout Diagram.

**Refer to the Permits Instruction Packet for details.**

**See Attached Drawing**



v8/24/2007	<b>Installation Information</b>		<b>Portable Site Location Information (If applicable)</b>				
<b>ID No.:</b>			<b>Site ID No.:</b>				
<b>Name:</b>			<b>Site Name:</b> Heartland Materials, LLC, Heartland Quarry				
<b>Proj. No.:</b>			<b>Site Address:</b> CR 601, Jackson, Missouri				
			<b>County, CSTR:</b> Cape Girardeau, SUR799/2192, T32N, R13E				

<b>Primary Unit Size (tph):</b>	1,000.00
<b>Nearest Property Line (feet):</b>	600

<b>Storage Pile Information</b>	<b>Defaults</b>	<b>Pile #1</b>	<b>Pile #2</b>	<b>Pile #3</b>
Storage Pile ID No.:	None	SP1		
Maximum Area of Storage Pile (Acres):	None	20		
Method of Load In to Storage Pile:	Truck	conveyor		
Method of Load Out from Storage Pile:	Loader	Loader		
Proposed Vehicular Activity Control:	None	BMPs		
Unloaded Loader Weight(tons):	None	32.00		
Average Loaded Loader Weight(tons):	None	44.00		
Average Distance Loader Travels(feet):	50	50		


<b>Power Source:</b> Engine/Generator		
<b>Warm-up/Shut-down Time (hours):</b>		
<b>Fuel Combustion Equipment Calculations</b>		
<b>Size of Combustion Unit (Enter Value for One Below):</b>		
Horsepower:	0.0	MMBTU/Hr:
Type of Fuel (Click for Pulldown):	Diesel	
HP Heat Input to Output Efficiency	MHDR	Fuel Units:
35	0.00000	1,000 Gallons

<b>Haul Road/Truck/Material Information</b>	<b>Defaults</b>	<b>Pit</b>	<b>Plant</b>	<b>Plant</b>	<b>Plant</b>	<b>Plant</b>	<b>Plant</b>
Haul Road ID No.:	None	HR 1	HR 2				
Length of Haul Road (Feet):	None	600	1600				
Unloaded Truck Weight (Tons):	None	25	10				
Average Loaded Truck Weight (Tons):	None	60	25				
<b>Haul Road Control Information</b>	<b>Defaults</b>	<b>Road #1</b>	<b>Road #2</b>	<b>Road #3</b>	<b>Road #4</b>	<b>Road #5</b>	<b>Road #6</b>
Click on Cell Below for Pull Down Menu and to Highlight Selection							
Proposed Haul Road Control (if applicable):	None	BMPs	BMPs				
Typical Control Efficiency Allowed (%):	0.00	90.0%	90.0%				

<b>Stack Parameters for Diesel Engines</b>	<b>Height(feet)</b>	<b>Diameter(feet)</b>	<b>Flow Rate</b>	<b>Exit Temperature</b>
<b>Fuel Tank Parameters</b>	<b>Height(feet)</b>	<b>Diameter(feet)</b>	<b>Capacity</b>	<b>Throughput</b>

Enter  
Emission Unit  
Information  
Below  
  


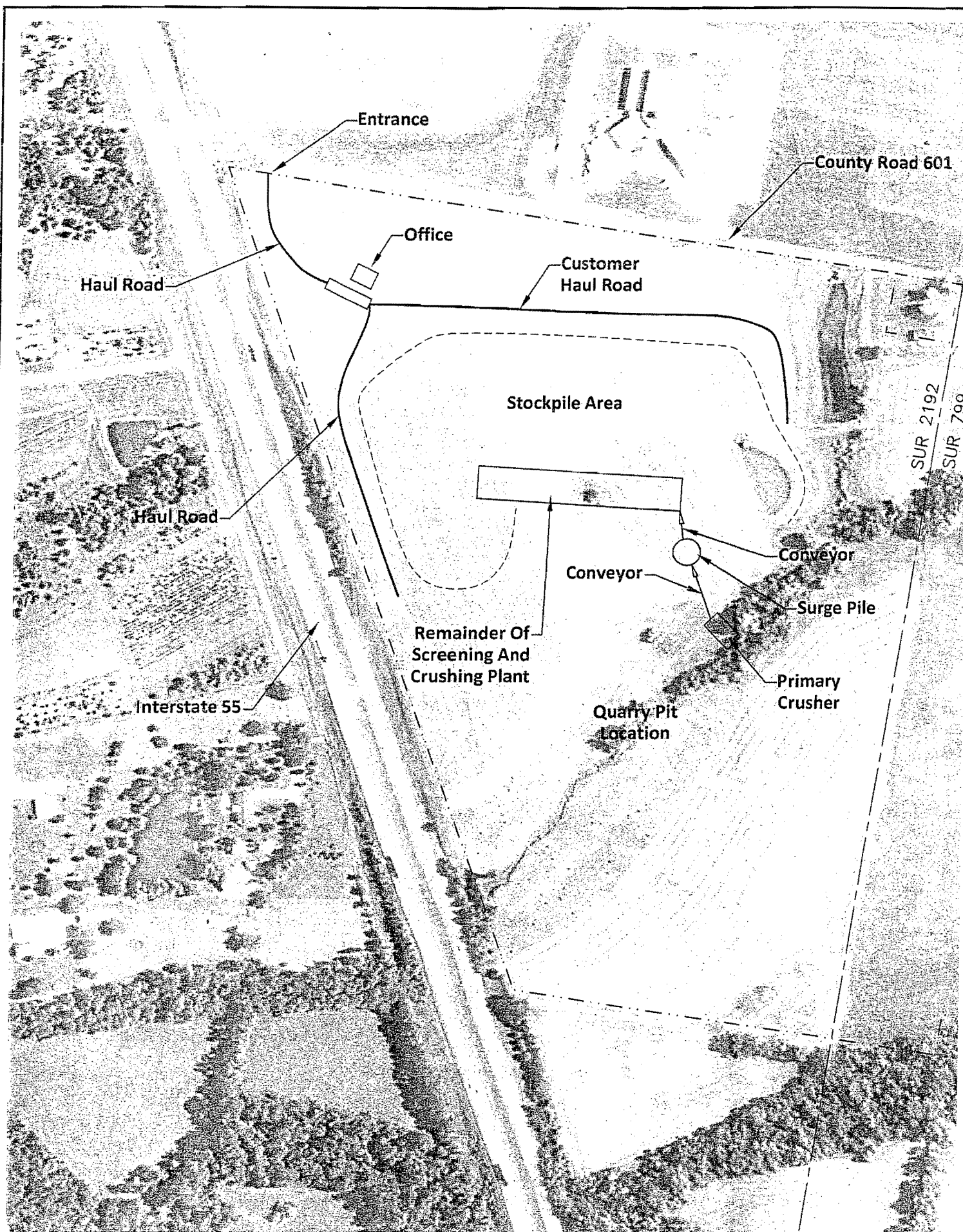
v8/24/2007	<b>Installation Information</b>		<b>Portable Site Location Information (if applicable)</b>			
<b>ID No.:</b>		<b>Site ID No.:</b>				
<b>Name:</b>		<b>Site Name:</b>	Heartland Materials, LLC, Heartland Quarry			

Unit ID	Description of Unit	Equipment/SCC Description Click on Cell Below for Pull Down Menu and to Highlight Selection	Max Hourly Design Rate (MHDR)	MHDR Units	Control Type Click on Cell Below for Pull Down Menu	"OOO" Applicable
EP 0-1	drilling	Drilling, Wet - Controlled (Not included in Calculations)	1000.0000	Tons		
EP 0-2	blasting	Blasting, (Not Included in Calculations)	1000.0000	Tons/Day		
EP1	loading fragmented stone	Truck Loading - Fragmented Stone, Uncontrolled EF	1000.0000	Tons		
EP2	haul road 1	Haul Road #1	6.4935	VMT	BMPs	
EP3	unloading fragmented stone	Truck Unloading - Fragmented Stone, Uncontrolled EF	1000.0000	Tons		
EP4	grizzly feeder	Grizzly Feeder	1000.0000	Tons		
EP5	primary crusher core unit (1)	Crusher-Primary, (Diameter 3-12")	1000.0000	Tons	Wet Spray Devices	
EP6	generic crushing (2 additional)	Crusher-Secondary, (Diameter 1-4")	1000.0000	Tons	Wet Spray Devices	
EP7	generic fine crushing (3 at 50 tph each)	Crusher-Fines, (< 3/16")	150.0000	Tons		
EP8	generic screens (4 each) 8 x 20 triple deck	Screens, (3/16" or Greater)	2000.0000	Tons	Wet Spray Devices-Carryover	
EP9	generic conveyors (50 each)	Conveyor	20000.0000	Tons	Wet Spray Devices	
EP10	generic storage bins (5 each)	Storage Bin	1500.0000	Tons	Wet Spray Devices-Carryover	
EP11	stock pile wind erosion	Wind Erosion, Storage Pile #1	20.0000	Acres		
EP11	stock pile vehicle activity	Vehicular Activity, Storage Pile #1	1000.0000	Tons	BMPs	
EP11	stock pile load out	Load Out, Storage Pile #1	1000.0000	Tons		
EP12	haul road 2	Haul Road #2	40.4040	VMT	BMPs	
EP13	generic pug mill	Storage Bin	300.0000	Tons	Moisture Content, => 1.5%	

[illegible]

## SITE DRAWING





**FIGURE 1**

October 2010